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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,886	12/29/2005	Masakazu Ohara	033634-003	1767

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EXAMINER	
LE, HOA T	

ART UNIT	PAPER NUMBER
1794	

NOTIFICATION DATE	DELIVERY MODE
05/30/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No.	Applicant(s)	
	10/540,886	OHARA ET AL.	
	Examiner	Art Unit	
	H. T. Le	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☒ Claim(s) *4-7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

2. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement, with regard to the term "oxygen ratio", as set forth in the prior office actions and further discussed below.

3. Applicant argued that "the oxygen ratio as recited in Tables 1 and 4 of the present specification represents a ratio to the amount of oxygen required for completely burning the silicon compound used as the starting material and for burning hydrogen used as a combustible gas." However, in reviewing tables 1 and 4, no where oxygen for burning starting material or oxygen for burning hydrogen in combustible gas is described or discussed. In fact, it is unclear how the values of "oxygen ratio" in these tables are arrived. On the other hand, "oxygen ratio" as defined in Mangold patent is the ratio of oxygen fed to the burner to the oxygen required to form the final silica and the oxygen required to convert excess hydrogen into water. As discussed in the last office action, oxygen is present in various stages of the process: in the gas flame, in the combustible silicon-source, in the resulting silica particles, etc. Therefore, without a clear definition of oxygen ratio, the term "oxygen ratio" is meaningless and thus non-enabling.

4. Applicant also argued that since the Examiner relied the term "oxygen ratio" defined in Mangold patent in the §102 rejection, "the term "oxygen ratio" has the same

meaning as in Applicants' disclosure." The fact that the examiner treats the oxygen ratio disclosed in the Mangold patent as having the same meaning as the claimed "oxygen ratio" is only for prior art rejection purpose; that is, in the absence of definition of the term "oxygen ratio", any "oxygen ratio" regardless how it is measured or defined can be assumed to have the same meaning as the claimed "oxygen ratio". However, that does not mean that the term "oxygen ratio" as described in the specification is enabled. The term "oxygen ratio" is relied for the purpose of 35 USC 102 art-rejection while the term "oxygen ratio" is being rejected under 35 USC 112. These are two different issues, and one cannot be used to justify the defect of the other.

35 USC § 102 Rejections-Response to Arguments

5. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by the Mangold patent (US 6,063,354) as set forth in the prior office actions and further discussed below.

6. Applicant argued that:

"Mangold et al discloses that the fractal dimension values were determined by N2 adsorption under predetermined pressure conditions. Col. 2, lines 4-6; col. 8, lines 30-31. Applicants note that such a determination represents the surface state of particles over a range of several nanometers. Claim 1, on the other hand, recites obtaining measurements by small-angle X-ray scattering, and recites a fractal structure parameter el at length scales ranging from 50 nm to 150 nm and a fractal structure parameter ~2 at length scales ranging from 150 nm to 353 nm. Thus, the fractal dimension *of Mangold et al* and the fractal structure parameters recited in claim 1 are measured in completely different regions, and a comparison between such values is not meaningful."

It has been held that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). Here, as stated in the last office action, Mangold teaches silica particles that have the same BET surface area and made by from the same flame hydrolysis process under the same conditions as disclosed in the instant specification. Furthermore, also discussed in the last office action, Mangold teaches an oxygen ratio (of feeding oxygen to required oxygen) from 0.7 to 0.9 which is equivalent to a reverse oxygen ratio (from required to feeding) of 1.1 to 1.4, which is the same oxygen ratio reported at Table 1 and Table 4 in the instant specification. Therefore, the silica particles disclosed in the Mangold patent possess the same fractal parameters as claimed. Since inherency has been established, the burden is now shifted to Applicant to prove that the product of the Applicant and the prior art are not the same. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 562 F.2d at 1255, 195 USPQ at 433. See also Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). **MPEP 2112.01 [R-3]**. Arguing that the property of Mangold is measured in a wider range than the range measured in the claimed product is specious. The burden is on Applicant to show that the Mangold silica particles do not possess the fractal structure parameter as claimed; that is to show that if the fractal

parameter of the silica particles taught by Mangold is measured in the same range as of the claimed product, a value different from the claimed $\alpha 1$ or $\alpha 2$ would have been resulted.

7. Applicant's arguments with respect to the rejection based on the Shibasaki patent have been fully considered and are persuasive. The rejection based on Shibasaki patent has been withdrawn.

Allowable Subject Matter

8. Claims 4-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: The silica particles as taught by Mangold function as polishing agents; therefore, it would not have been obvious to treat the silica particles with surface agents as described in claim 4, incorporated the silica particles as fillers in resin as required in claim 5, or function as toner additive as recited in claims 6 and 7.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. Thi Le/
H. (Holly) T. Le
Primary Examiner
Art Unit 1794

May 23, 2008.